In the Claims

1. (Currently Amended) A method for manufacturing a grain-oriented electrical steel sheet, comprising the steps of:

rolling a steel slab containing 0.08 mass percent or less of carbon, 2.0-8.0 mass percent of Si, and 0.005-3.0 mass percent of Mn into a cold-rolled steel sheet;

subsequently performing decarburizing annealing of the cold-rolled steel sheet if desired;

subsequently applying an annealing separator to the cold-rolled steel sheet if desired;

performing secondary-recrystallization annealing of the cold-rolled steel sheet; and

subsequently performing purification annealing of the cold-rolled steel sheet,

wherein the steel slab contains less than 100 ppm of Al and not more than 50 ppm each of N, S, and Se and the remainder being Fe and inevitable impurities, the purification annealing is performed at 1050°C or more, and the partial pressure of hydrogen in the atmosphere is adjusted to 0.4 atm or less in a temperature range above 1170°C for a purification annealing conducted at a temperature above 1170°C, or 0.8 atm or less in a temperature range of 1050°C or more for a purification annealing conducted at a temperature of 1170°C or less.

2. (Currently Amended) ~~The~~ A method for manufacturing a grain-oriented electrical steel sheet ~~according to Claim 1~~, comprising the steps of:

rolling a steel slab containing 0.08 mass percent or less of carbon, 2.0-8.0 mass percent of Si, and 0.005-3.0 mass percent of Mn, and ~~wherein the steel slab~~ further ~~contains~~ containing 0.005-1.50 mass percent of Ni and/or 0.01-1.50 mass percent of Cu, into a cold-rolled steel sheet;

subsequently performing decarburizing annealing of the cold-rolled steel sheet if desired;

subsequently applying an annealing separator to the cold-rolled steel sheet if desired;

performing secondary-recrystallization annealing of the cold-rolled steel sheet; and

subsequently performing purification annealing of the cold-rolled steel sheet, wherein the steel slab contains less than 100 ppm of Al and not more than 50 ppm each of N, S, and Se and the remainder being Fe and inevitable impurities, the purification annealing is performed at 1050°C or more, and the partial pressure of hydrogen in the atmosphere is adjusted to 0.4 atm or less in a temperature range above 1170°C for a purification annealing conducted at a temperature above 1170°C, or 0.8 atm or less in a temperature range of 1050°C or more for a purification annealing conducted at a temperature of 1170°C or less.

3. (Currently Amended) ~~The~~ A method for manufacturing a grain-oriented electrical steel sheet ~~according to Claim 1~~, comprising the steps of:

rolling a steel slab containing 0.08 mass percent or less of carbon, 2.0-8.0 mass percent of Si, and 0.005-3.0 mass percent of Mn, and ~~wherein the steel slab~~ further ~~contains~~ containing a total of 0.0050-0.50 mass percent of at least one of Cr, As, Te, Sb, Sn, P, Bi, Hg, Pb, Zn, and Cd, into a cold-rolled steel sheet;

subsequently performing decarburizing annealing of the cold-rolled steel sheet if desired;

subsequently applying an annealing separator to the cold-rolled steel sheet if desired;

performing secondary-recrystallization annealing of the cold-rolled steel sheet; and

subsequently performing purification annealing of the cold-rolled steel sheet, wherein the steel slab contains less than 100 ppm of Al and not more than 50 ppm each of N, S, and Se, the purification annealing is performed at 1050°C or more, and the partial pressure of the hydrogen in the atmosphere is adjusted to 0.2 atm or less in a temperature range above 1170°C for a purification

annealing conducted at a temperature above 1170°C, or 0.6 atm or less in a temperature range of 1050°C or more for a purification annealing conducted at a temperature of 1170°C or less.

4. (Currently Amended) ~~The~~ A method for manufacturing a grain-oriented electrical steel sheet ~~according to Claim 1~~, comprising the steps of:

rolling a steel slab containing 0.08 mass percent or less of carbon, 2.0-8.0 mass percent of Si, and 0.005-3.0 mass percent of Mn, and ~~wherein the steel slab~~ further ~~contains~~ containing a total of 0.0050-0.50 mass percent of at least one of As, Te, Sb, Sn, P, Bi, Hg, Pb, Zn, and Cd, into a cold-rolled steel sheet;

subsequently performing decarburizing annealing of the cold-rolled steel sheet if desired;

subsequently applying an annealing separator to the cold-rolled steel sheet if desired;

performing secondary-recrystallization annealing of the cold-rolled steel sheet; and

subsequently performing purification annealing of the cold-rolled steel sheet, wherein the steel slab contains less than 100 ppm of Al and not more than 50 ppm each of N, S, and Se, the purification annealing is performed at 1050°C or more, and the partial pressure of the hydrogen atmosphere is adjusted to 0.2 atm or less in a temperature range above 1170°C for a purification annealing conducted at a temperature above 1170°C, or 0.6 atm or less in a temperature range of 1050°C or more for a purification annealing conducted at a temperature of 1170°C or less.

5. (Currently Amended) The method for manufacturing a grain-oriented electrical steel sheet according to any one of ~~Claim~~ Claims 1 to 4 and 11, wherein, as the annealing separator, a MgO-based annealing separator is applied to the cold-rolled steel sheet.

6. (Currently Amended) The method for manufacturing a grain-oriented electrical steel sheet according to any one of ~~Claim~~ Claims 1 to 4 and 11, wherein the rolling step comprises the substeps of:

hot-rolling the steel slab;

annealing the hot-rolled steel sheet if desired; and

performing cold-rolling one time, or at least two times with intermediate annealing therebetween to produce the cold-rolled steel sheet.

7. (Currently Amended) The method for manufacturing a grain-oriented electrical steel sheet according to any one of ~~Claim~~ Claims 1 to 4 and 11, wherein the nitrogen content in the atmosphere is less than 50% by volume in the purification annealing.

8. (Currently Amended) The method for manufacturing a grain-oriented electrical steel sheet according to any one of ~~Claim~~ Claims 1 to 4 and 11, wherein the rolling comprises a cold-rolling substep of preparing a cold-rolled steel strip, and the cold-rolled steel strip is subjected to the secondary-recrystallization annealing and the purification annealing to produce a strip-shaped grain-oriented electrical steel sheet.

9.–10. (Cancelled)

11. (New) A method for manufacturing a grain-oriented electrical steel sheet, comprising the steps of:

rolling a steel slab containing 0.08 mass percent or less of carbon, 2.0-8.0 mass percent of Si, and 0.005-3.0 mass percent of Mn, and further containing 0.005-1.50 mass percent of Ni and/or 0.01-1.50 mass percent of Cu, and a total of 0.0050-0.50 mass percent of at least one of Cr, As, Te, Sb, Sn, P, Bi, Hq, Pb, Zn, and Cd, into a cold-rolled steel sheet;

subsequently performing decarburizing annealing of the cold-rolled steel sheet if desired;

subsequently applying an annealing separator to the cold-rolled steel sheet if desired;

performing secondary-recrystallization annealing of the cold-rolled steel sheet; and

subsequently performing purification annealing of the cold-rolled steel sheet,

wherein the steel slab contains less than 100 ppm of Al and not more than 50 ppm each of N, S, and Se, the purification annealing is performed at 1050°C or more, and the partial pressure of hydrogen in the atmosphere is adjusted to 0.2 atm or less in a temperature range above 1170°C for a purification annealing conducted at a temperature above 1170°C, or 0.6 atm or less in a temperature range of 1050°C or more for a purification annealing conducted at a temperature of 1170°C or less.